

Great Lakes Program

The DEP Office of the Great Lakes is responsible for the coordination and implementation of the Commonwealth's Great Lakes Program of water quality and watershed-related initiatives, including commitments under the Great Lakes Water Quality Agreement (GLWQA) and the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Compact and Agreement. This multi-disciplinary, multi-jurisdictional program interacts with Great Lakes states, Canadian provinces, and U.S. and Canadian federal governments to implement policies and programs to achieve protection of the largest surface freshwater system on Earth.

In 1972, the GLWQA was signed by U.S. and Canada to provide a framework for the restoration, protection, and management of the Great Lakes water resources shared between the countries. The GLWQA was amended in 2012 to include a process to develop new phosphorus reduction targets for Lake Erie to address over-nutrication problems identified within the lakes and develop U.S and Canadian Domestic Action Plans (DAP) for phosphorus reductions in each country. [The final Pennsylvania Lake Erie Phosphorus Reduction DAP](#) was adopted in September 2017.

During the reporting period (Oct. 1 2017 – Sept. 30 2019), the Office of the Great Lakes expended approximately \$360,000 of EPA Great Lakes Restoration Initiative ([GLRI](#)) Pennsylvania State Capacity funds, and for fiscal years 2019-2022 dedicated an additional \$693,758 in GLRI Management Assistance funds and \$552,453 in GLRI grant funding to implement the Pennsylvania Lake Erie Phosphorus Reduction Domestic Action Plan (GLRI DAP Implementation). This funding is authorized through Section 118(c) of the Clean Water Act. These partnerships allow the Great Lakes Program to make advancements in several areas of water quality, including:

Pennsylvania Vested in Environmental Sustainability PLUS (PA VinES)

Beginning in 2014, DEP Office of the Great Lakes assembled essential stakeholders to develop a new agricultural outreach and best management practices program named [PA VinES](#). This program works with viticulture and grape growers, the largest agricultural land use in the PA Lake Erie Basin, through a voluntary, proactive approach to assess agricultural operations for environmental and economic sustainability, fund best management practices identified by the assessments, and create a certification/recognition program. During the reporting period, DEP directed \$362,000 of state Growing Greener funds and \$60,000 in GLRI PA State Capacity funds to the program. In 2019, DEP and ECCD expanded the program to include other agriculture types found in the PA Lake Erie Basin and awarded \$243,000 in GLRI DAP Implementation funding to construct water quality BMPs and continue program administration through 2022.

Erie County Small Flow Treatment Facilities (SFTF) Monitoring Program

DEP directed \$148,612 in GLRI PA State Capacity funds during the reporting period to the Erie County Department of Health (ECDH) to implement the SFTF Program. Certain soil types in the Pennsylvania Lake Erie Basin can be challenging for the proper function of traditional, in-ground, on-lot private sewage treatment in the absence of

public sewage collection infrastructure. NPDES-permitted SFTFs are proliferating in recent years with over 477 in Erie County, a significant number experiencing frequent violations for issues such as lack of disinfection, inadequate operation and maintenance, and failure to submit reports. When malfunctioning, these systems contribute to nutrient, bacterial, and other forms of pollution of Lake Erie tributaries. The SFTF Program samples these systems for compliance and offers education and outreach to system owners. DEP awarded \$251,853 in GLRI DAP Implementation funding to ECDH to continue the program through 2022 and dedicated an additional \$57,200 in lab analysis funding to support program activities.

Erie County Municipal Stormwater Assistance Program (MSAP)

The Erie County MSAP provides municipalities with additional programmatic capacity to improve the effectiveness of local municipal stormwater management programs and to reduce pollutants to impaired streams, particularly in the Pennsylvania Lake Erie Watershed. The Erie County Department of Planning and Community Development (PCD) provides services in the following areas: Stormwater Infrastructure Mapping and Geographical Information System (GIS) Services; Stormwater Education, Outreach and Public Involvement; and, Stormwater Infrastructure and Pollution Reduction Project Funding Assistance. Nine municipal partners participate in the program including all regulated Erie County MS4s as well as some non-MS4 communities. Project funding during this grant cycle will enable program services to municipalities to mature and develop a sustainable, local funding solution. DEP directed \$60,000 in GLRI PA State Capacity funds for MSAP during the reporting period and awarded an additional \$100,000 of GLRI Management Assistance funds to continue the program through 2022.

Harmful Algae Bloom (HAB) Monitoring and Detection

To improve Erie County public health and safety during the reporting period, DEP directed \$68,500 in GLRI PA State Capacity to the Regional Science Consortium at Presque Isle to monitor for localized HAB conditions on Presque Isle State Park, Presque Isle Bay, and other public access locations along Lake Erie's coastline. The Pennsylvania Lake Erie HAB Task Force, consisting of state, county and municipal representatives, developed a public notification protocol when HAB conditions are identified. The HAB Task Force operates closely with the *E. coli* monitoring on our public beaches and is essential to the support of public recreation – one of the foundations of the local economy in the Pennsylvania Lake Erie Basin. DEP awarded an additional \$91,200 in GLRI Management Assistance Funds through 2022 to continue the program.

Pennsylvania Lake Erie Environmental Forum (PA LEEF)

To increase public participation in DEP policy development during the reporting period, DEP Office of the Great Lakes directed \$22,828 of GLRI Management Assistance funding to Pennsylvania Sea Grant to organize PA LEEF. [This initiative](#) holds semi-annual public meetings to inform local citizens and government agencies about topics of concern on the Great Lakes and how DEP responds to those challenges. Meetings routinely gather over 50 attendees and help in the outreach associated with the

Pennsylvania Lake Erie Phosphorus Reduction Domestic Action Plan and other important initiatives. DEP awarded an additional \$54,432 in GLRI Management Assistance funding to conduct PA LEEF meeting through 2022.